What is claimed is:

1. A curable coating composition comprising:

at least one oligomer comprising a polyol soft block having a number average molecular weight of more than about 4000 and at least one reactive monomer, wherein said composition has a cured coating tensile strength of at least about 0.85 MPa and a Young's Modulus of less than about 1.3 MPa.

2. The coating composition of claim 1, wherein said polyol has a number average molecular weight of at least about 8000.

3. The coating composition of claim 1, wherein said polyol comprises at least one moiety of polypropylene glycol having a number average molecular weight of at least about 4000.

4. The coating composition of claim 1, wherein said oligomer comprises:

HEA~H12MDI~PPG_{4000}~H12MDI~HEA, where PPG_{4000} comprises a polypropylene glycol having a number average molecular weight of approximately 4000 and a molecular weight distribution of less than about 1.1, H12MDI comprises 4,4'-methylenebis(cyclohexylisocyanate), and HEA comprises 2-hydroxyethyl acrylate.

5. The coating composition of claim 1, wherein said oligomer comprises:

HEA~H12MDI~PPG_{4000}~H12MDI~PPG_{4000}~H12MDI~HEA,

where PPG_{4000} comprises a polypropylene glycol having a number average molecular weight of approximately 4000 and a molecular weight distribution of less than about 1.1, H12MDI comprises 4,4'-methylenebis(cyclohexylisocyanate), and HEA comprises 2-hydroxyethyl acrylate.

6. The coating composition of claim 1, wherein said oligomer comprises:

HEA~(IPDI~PPG_{2000}~IPDI) ~T_{2000}~(IPDI~PPG_{2000}~IPDI)~HEA,

where HEA comprises hydroxyethyl acrylate, IPDI comprises isophorone diisocyanate, PPG_{2000} comprises poly(propylene glycol) with a M_n of about 2000 and T_{2000} comprises poly(tetramethylene glycol) with a M_n of about 2000.

7. The coating composition of claim 1, wherein said oligomer is substantially devoid of a polyurea group (-N(C=O)N-).

8. The coating composition of claim 1, wherein said monomer is a tripropylene glycol methylether monoacrylate.

9. The coating composition of claim 1, wherein said monomer comprises:

R_2-R_1-O-$(CH_2CH_3CH$-O$)_n$-COCH=CH_2, where R_1 and R_2 are aliphatic, aromatic, or a mixture of both, and n =1 to 10.

10. The coating composition of claim 1, wherein said monomer comprises:

R_1-O-$(CH_2CH_3CH$-O$)_n$-COCH=CH_2 , where R_1 is aliphatic or aromatic, and n =1 to 10.

11. The coating composition of claim 1, further comprising a monomer having a branched polyoxyalkylene chain.

12. The coating composition of claim 1, wherein said monomer comprises propylene oxide acrylates, n-propylene oxide acrylates, iso-propylene oxide acrylates, substituted iso-propylene oxide acrylates, substituted alkoxy alkyl alkenes, propylene oxide ethoxylated oxides, or combinations thereof.

13. The coating composition of claim 1, wherein said composition when cured comprises a Young's Modulus of about 1.28 MPa or less and a tensile strength of at least about 1 MPa.

14. The coating composition of claim 13, wherein said composition comprises a Young's Modulus of about 1.25 MPa or less.

15. The coating composition of claim 13, wherein said composition comprises a Young's Modulus of about 1 MPa or less.

16. The coating composition of claim 13, wherein said composition comprises a tensile strength of at least about 1.5 MPa.

17. The coating composition of claim 13, wherein said composition comprises a tensile strength of at least about 1.75 MPa.

18. The coating composition of claim 13, wherein said composition comprises a viscosity at 25° C of less than about 80 poise.

19. The coating composition of claim 14, wherein said composition comprises a viscosity at 25° C of less than about 50 poise.

20. The composition of claim 1, further comprising a photoinitiator.

21. The composition of claim 1, further comprising at least one of an adhesion promoter, reactive diluent, antioxidant, catalyst, stabilizer, property-enhancing additive, wax, lubricant, and slip agent.

22. A coated optical fiber comprising an optical fiber having a primary coating layer thereon comprising the polymerized product of at least one oligomer comprising a polyol soft block having a number average molecular weight of more than about 4000 and at least one reactive monomer, wherein said cured coating has a tensile strength of at least about 0.85 MPa and a Young's Modulus of less than about 1.3 MPa.

23. The coated fiber of claim 22, wherein said polyol has a number average molecular weight of at least about 8000.

24. The coated fiber of claim 22, wherein said polyol comprises at least one moiety of polypropylene glycol having a number average molecular weight of at least about 4000.

25. The coated fiber of claim 22, wherein said oligomer comprises:

HEA~H12MDI~PPG_{4000}~H12MDI~HEA, where PPG_{4000} comprises a polypropylene glycol having a number average molecular weight of approximately 4000 and a molecular weight distribution of less than about 1.1, H12MDI comprises 4,4'-methylenebis(cyclohexylisocyanate), and HEA comprises 2-hydroxyethyl acrylate.

26. The coated fiber of claim 22, wherein said oligomer comprises:

HEA~H12MDI~PPG_{4000}~H12MDI~PPG_{4000}~H12MDI~HEA,

where PPG_{4000} is a polypropylene glycol having a molecular weight of approximately 4000 and a molecular weight distribution of less than about 1.1, H12MDI is 4,4'-methylenebis(cyclohexylisocyanate), and HEA is 2-hydroxyethyl acrylate.

27. The coated fiber of claim 22, wherein said oligomer comprises:

HEA~(IPDI~PPG_{2000}~IPDI) ~T_{2000}~(IPDI~PPG_{2000}~IPDI)~HEA, where HEA comprises hydroxyethyl acrylate, IPDI comprises isophorone diisocyanate, PPG_{2000} comprises poly(propylene glycol) with a M_n of about 2000 and T_{2000} comprises poly(tetramethylene glycol) with a M_n of about 2000.

28. The coated fiber of claim 22, wherein said oligomer is substantially devoid of a polyurea group (-N(C=O)N-).

29. The coated fiber of claim 22, wherein said monomer is a tripropylene glycol methylether monoacrylate.

30. The coated fiber of claim 22, wherein said monomer comprises:

R_2-R_1-O-$(CH_2CH_3CH$-$O)_n$-$COCH=CH_2$, where R_1 and R_2 are aliphatic, aromatic, or a mixture of both, and n =1 to 10.

31. The coated fiber of claim 22, wherein said monomer comprises:

R_1-O-$(CH_2CH_3CH$-O$)_n$-COCH=CH_2 , where R_1 is aliphatic or aromatic, and n =1 to 10.

32. The coated fiber of claim 31, further comprising a monomer having a branched polyoxyalkylene chain.

33. The coated fiber of claim 22, wherein said monomer comprises propylene oxide acrylates, n-propylene oxide acrylates, iso-propylene oxide acrylates, substituted iso-propylene oxide acrylates, substituted alkoxy alkyl alkenes, propylene oxide ethoxylated oxides, or combinations thereof.

34. The coated fiber of claim 22, wherein said cured coating has a Young's Modulus of about 1.28 MPa or less and a tensile strength of at least about 1 MPa.

35. 35. The coated fiber of claim 22, wherein said cured coating has a Young's Modulus of about 1.25 MPa or less.

36. The coated fiber of claim 22, wherein said cured coating has a Young's Modulus of about 1 MPa or less.

37. The coated fiber of claim 22, wherein said cured coating has a tensile strength of at least about 1.5 MPa.

38. The coated fiber of claim 22, wherein said cured coating has a tensile strength of at least about 1.75 MPa.

39. A method for making a coated optical fiber, comprising:

providing an optical fiber;

coating the optical fiber with a polymerizable composition comprising at least one oligomer comprising a polyol soft block having a number

average molecular weight of more than about 4000, and at least one reactive monomer; and

polymerizing the composition under conditions effective to form a primary coating over the optical fiber wherein said cured composition has a coating tensile strength of at least about 0.85 MPa and a Young's Modulus of less than about 1.3 MPa.

40. The method of claim 39, further comprising coating the optical fiber with a secondary polymerizable composition over said primary coating.

41. The method of claim 40, wherein said coating of the optical fiber with a secondary polymerizable composition is carried out prior to said polymerizing, whereby said polymerizing simultaneously polymerizes said polymerizable compositions.

42. The method of claim 40, wherein said coating of the optical fiber with a secondary polymerizable composition is carried out after said polymerizing and further comprises polymerizing the secondary polymerizable composition after it is applied to the glass fiber.

43. The coating composition of claim 1, wherein said polyol comprises a molecular weight distribution of less than about 1.1.

44. The coating composition of claim 1, wherein said composition comprises a viscosity at 25° C of less than about 970 cps.

45. The coating composition of claim 1, wherein said monomer comprises a branched polyoxyalkylene chain.

46. A curable coating composition comprising:

at least one oligomer comprising a polyol soft block having a number-average molecular weight of more than about 4000 wherein in said oligomer comprises at least one of the oligomers selected from HEA-H12MDI-

PPG_{4000}-H12MDI-HEA; HEA-H12MDI-PPG_{4000}-H12MDI-PPG_{4000}-H12MDI-HEA; HEA-(IPDI-PPG_{2000}-IPDI)-T_{2000}-(IPDI-PPG_{2000}-IPDI)-HEA; HEA-(IPDI-T_{2000}-IPDI)-PPG_{2000}-(IPDI-T_{2000}-IPDI)-HEA; HEA-(IPDI-PPG_{2000}-IPDI)-BD-(IPDI-PPG_{2000}-IPDI)-HEA; HEA-(IPDI-BD-IPDI)-PPG_{2000}-(IPDI-BD-IPDI)-HEA; HEA-(IPDI-EG_4-IPDI)-PPG_{2000}-(IPDI-EG_4-IPDI)-HEA; HEA-H12MDI-PPG_{8000}-H12MDI-HEA; and combinations thereof wherein HEA comprises a hydroxyethyl acrylate capping group, IPDI comprises a diisocyanate, PPG_{2000} comprises a poly(propylene glycol) with a M_n= 2000, T_{2000} comprises a poly(tetramethylene glycol) with a M_n= 2000, BD comprises a butanediol, EG_4 comprises a tetraethylene gylcol, and PPG_{4000} comprises a poly(propylene glycol) with a M_n= 4000, and H12MDI comprises an isocyanate at least one reactive monomer, wherein said composition has a cured coating tensile strength of at least about 0.85 MPa and a Young's Modulus of less than about 1.3 MPa.